A(4-F1A, 10-E11, 12-V4A) D(8-B4, 8-B5) E(10-A7, 10- | A9B8, 10-A22B, 10-A22D, 10-B2B, 10-C2, 10-C3, 10-D3C, 10-E2D5, 10-E2U, 10-E4K, 32-A4) (a) polycarboxylic acids and their salts;(b) polyhydroxylic phenols; \*FR 2816833-A1 Cosmetic composition comprises polymer dispersion prepared by **OREA 2000.11.21** 2000.11.21 2000-015035(+2000FR-015035) (2002.05.24) A61K 7/06, A96 D21 E19 (A14 A25 A26) 2002-646209/70 L'OREAL SA

polymerizing water-soluble monomer in aqueous salt solution containing polyelectrolyte dispersant and viscosity increase inhibitor

C2002-182490

GIROUD F Addnl. Data:

## NOVELTY

by polymerizing a water-soluble monomer having at least one double bond in an aqueous salt solution containing a polyelectrolyte dispersant and a selected viscosity increase inhibitor. Cosmetic composition comprises a polymer dispersion prepared

# DETAILED DESCRIPTION

by polymerizing a water-soluble monomer having at least one double bond in an aqueous salt solution containing a polyelectrolyte Cosmetic composition comprises a polymer dispersion prepared dispersant and a viscosity increase inhibitor selected from:

(c) cyclic hydroxy carboxylic acids and their salts;(d) gluconic acid and its salts;(e) products obtained by reacting methoxyhydroquinone and/or a cationic (meth)acrylic monomer with a radical source in an oxidizing atmosphere;

(f) products obtained by reacting a cationic (meth)acrylic polymer with a radical source in an oxidizing atmosphere; and

(g) products obtained by reacting a cationic (meth)acrylic polymer with an oxidizing agent.

### USE

The composition is useful as a rinse-off or leave-on hair product, especially a shampoo or styling mousse, lotion or gel.

## EXAMPLE

A typical composition was prepared by polymerizing a mixture of

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monomers (25%), pyrogallol (2500 ppm), p-hydroxybenzoic acid (50 acryloyloxyethyl dimethyl benzyl ammonium chloride (30 mole%), poly(methacryloyloxyethyl trimethyl ammonium chloride) (1%), ammonium sulfate (19%) and water (to 100%). acryloyloxyethyl trimethyl ammonium chloride (50 mole%) and acrylamide (20 mole%) in a reaction mixture comprising the ppm), poly(dimethyldiallylammonium chloride) (1%)

TECHNOLOGY FOCUS
Polymers - Preferred Monomer: The water-soluble monomer is either:

(i) a quaternized diallylamine derivative or a quaternary ammonium or (meth)acrylamide in which the alkyl group is ethyl, propyl or acid addition salt of an aminoalkyl (meth)acrylate of hydroxypropyl;

(ii) (meth)acrylic acid or 2-acrylamido-2-methylpropane sulfonic acid;

(iii) (meth)acrylamide, N-vinylformamide, N-vinylacetamide or hydroxypropyl (meth)acrylate.

Preferred Polymer: The polymer comprises either:

(i) 20 mole% acrylamide, 30 mole% acryloyloxyethyl dimethyl benzyl ammonium chloride and 50 mole% acryloyloxyethyl trimethyl ammonium chloride; or

(ii) 65 mole% acrylamide and 35 mole% acryloyloxyethyl trimethyl ammonium chloride.

chloride or (meth)acrylamidopropyl trimethyl ammonium chloride and Preferred Polyelectrolyte: The polyelectrolyte is a product obtained by di(meth)allylamine salt, (meth)acryloyloxyethyl trimethyl ammonium polymerizing 50-100 mole% of a dimethylaminoethyl (meth)acrylate salt, an N-dimethylaminopropyl (meth)acrylamide salt, a 0-50 mole% acrylamide.

preferably an ammonium, sodium, magnesium or aluminum sulfate or viscosity increase inhibitor is preferably: oxalic, adipic, tartaric, malic or phthalic acid; m- or p-hydroxybenzoic acid, salicylic acid, gallic Inorganic Chemistry - Preferred Salt Solution: The salt solution is Organic Chemistry - Preferred Viscosity Increase Inhibitor: The acid or tannic acid; or gluconic acid or a gluconate salt. bisulfate solution.

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